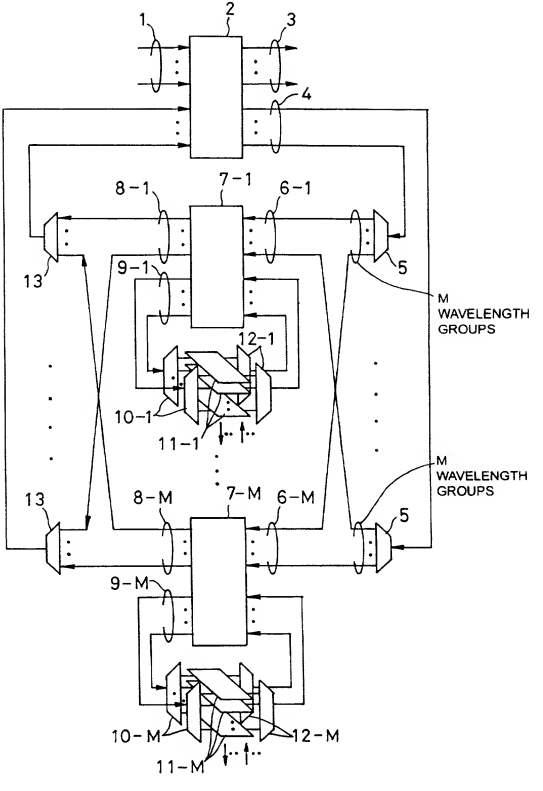
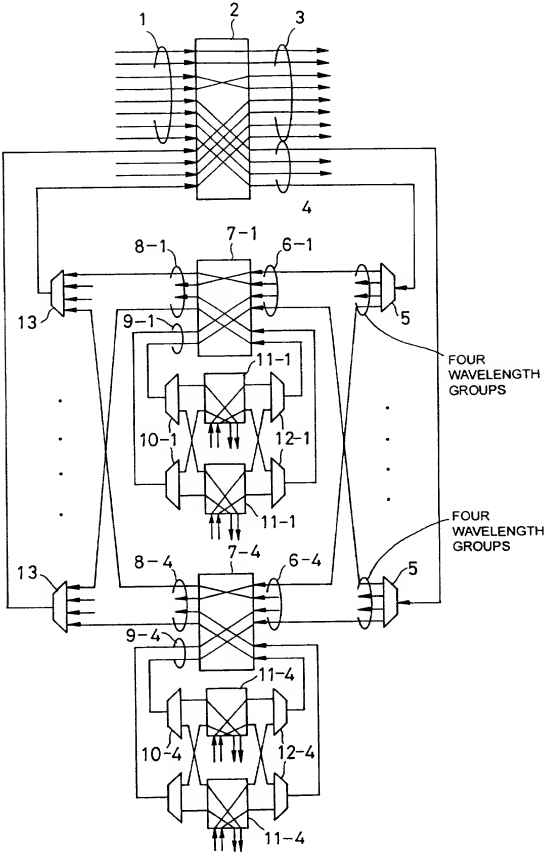
FIG. 1



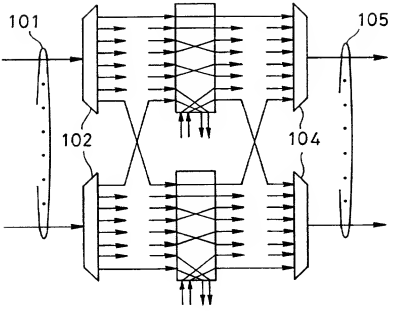
JP2011-100365-A1 2011.05.19

FIG. 2



JP03353-1102C1

FIG. 3



1003653.11201

FIG. 4

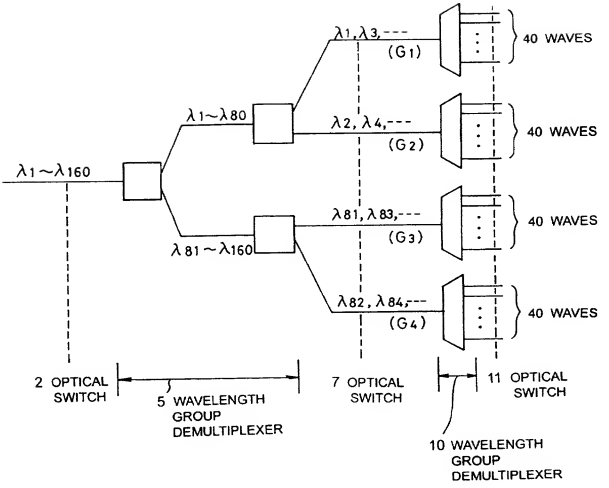
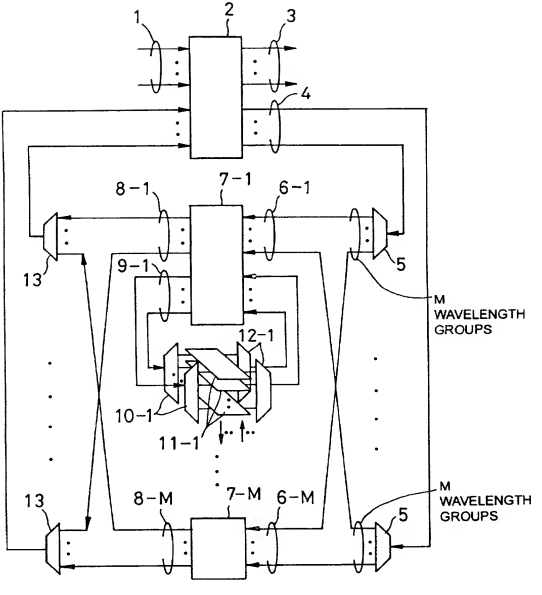

λ1,λ3,---
(G1)
40 WAVES
λ1~λ80
λ2, λ4,---
(G2)
40 WAVES
λ1~λ160
λ81, λ83,---
(G3)
40 WAVES
λ81~λ160
λ82, λ84,---
(G4)
40 WAVES
2 OPTICAL SWITCH
5 WAVELENGTH GROUP DEMULTIPLEXER
7 OPTICAL SWITCH
11 OPTICAL SWITCH
10 WAVELENGTH GROUP DEMULTIPLEXER

FIG.5



JP2011159600001

FIG. 6

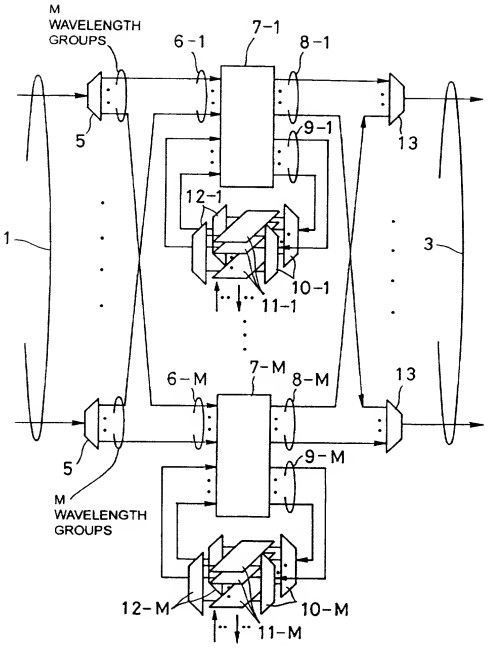
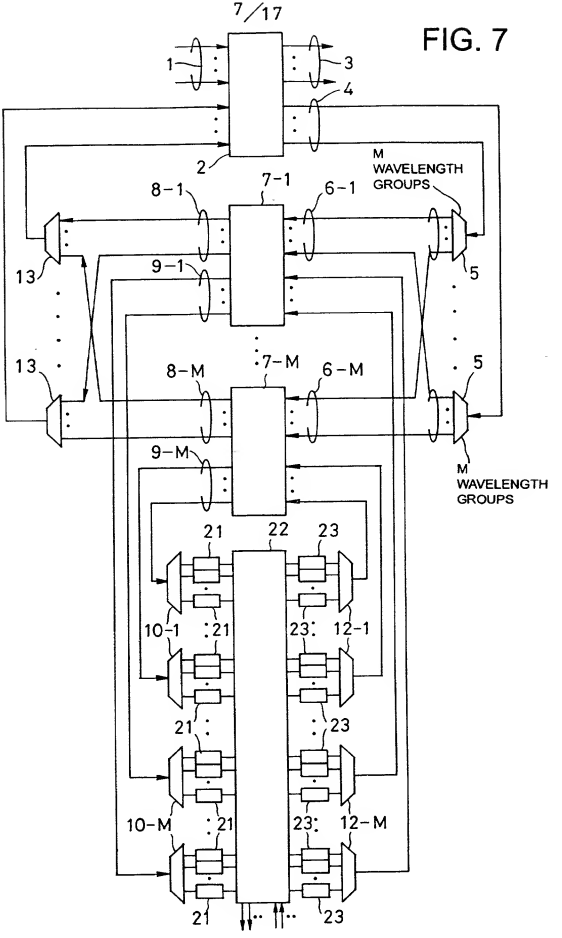

M
WAVELENGTH
GROUPS
6-1
7-1
8-1
5
9-1
13
12-1
1
3
10-1
11-1
6-M
7-M
8-M
13
5
9-M
M
WAVELENGTH
GROUPS
12-M
10-M
11-M

FIG. 7



10039653.110201

FIG. 8

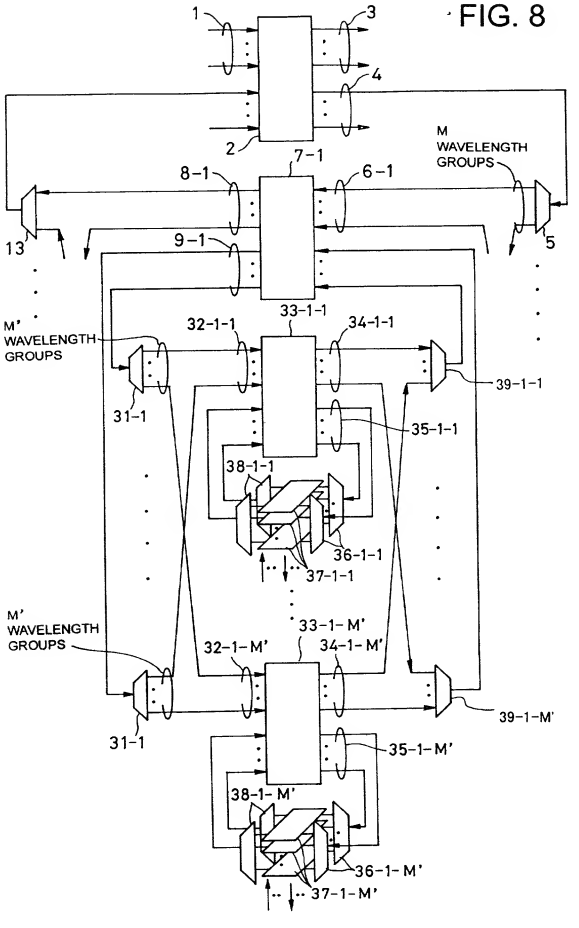

1
3
4
2
M
WAVELENGTH
GROUPS
7-1
8-1
6-1
13
9-1
5
33-1-1
M'
WAVELENGTH
GROUPS
32-1-1
34-1-1
39-1-1
31-1
35-1-1
38-1-1
36-1-1
37-1-1
M'
WAVELENGTH
GROUPS
33-1-M'
32-1-M'
34-1-M'
39-1-M'
31-1
35-1-M'
38-1-M'
36-1-M'
37-1-M'

FIG. 9

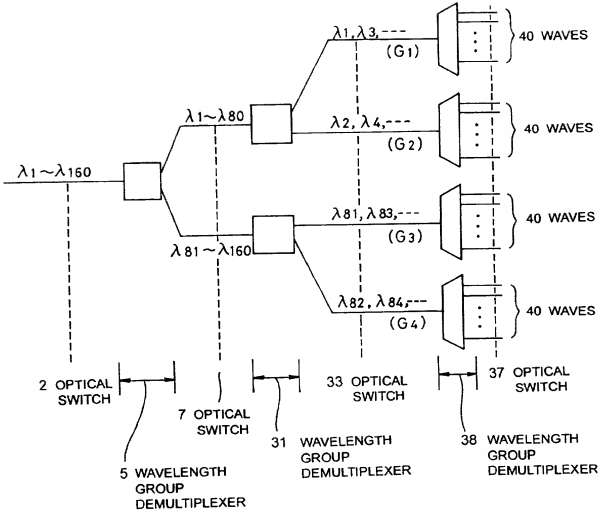
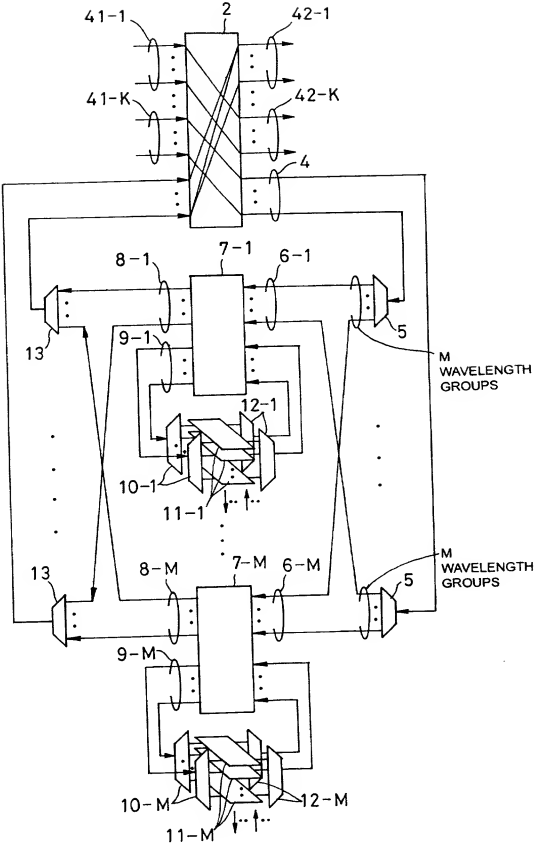

λ1,λ3,---
(G1)
40 WAVES
λ1~λ80
λ2,λ4,---
(G2)
40 WAVES
λ1~λ160
λ81,λ83,---
(G3)
40 WAVES
λ81~λ160
λ82,λ84,---
(G4)
40 WAVES
2 OPTICAL SWITCH
7 OPTICAL SWITCH
33 OPTICAL SWITCH
37 OPTICAL SWITCH
5 WAVELENGTH GROUP DEMULTIPLEXER
31 WAVELENGTH GROUP DEMULTIPLEXER
38 WAVELENGTH GROUP DEMULTIPLEXER

FIG. 10



T02071 *11/2001

FIG. 11

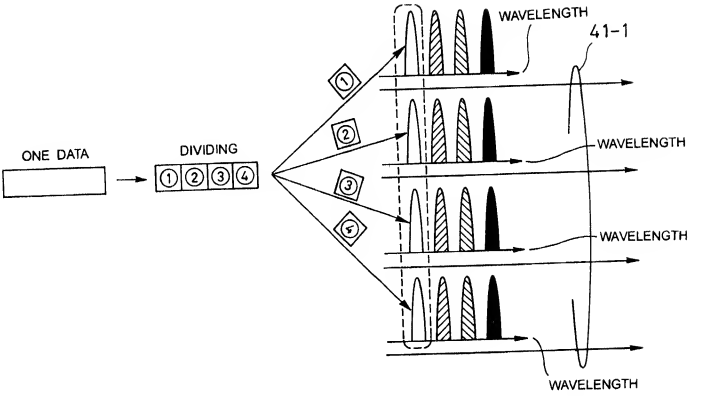
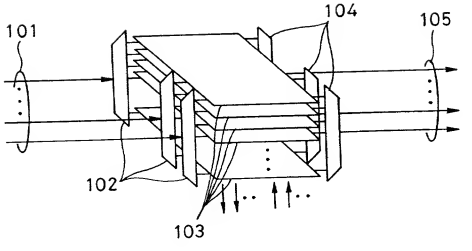
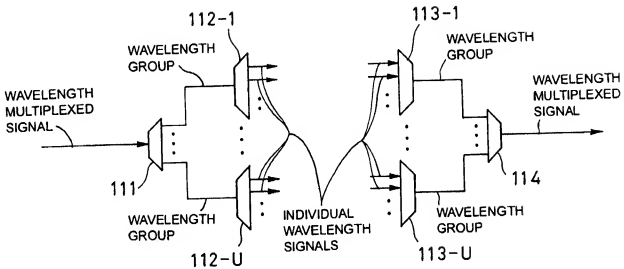

ONE DATA
DIVIDING
1
2
3
4
WAVELENGTH
41-1
WAVELENGTH
WAVELENGTH
WAVELENGTH

FIG. 12



1008355.110201

FIG. 13


112-1
WAVELENGTH GROUP
WAVELENGTH MULTIPLEXED SIGNAL
111
WAVELENGTH GROUP
112-U
INDIVIDUAL WAVELENGTH SIGNALS
113-1
WAVELENGTH GROUP
WAVELENGTH MULTIPLEXED SIGNAL
114
WAVELENGTH GROUP
113-U

T02DTT" E59E000T

FIG. 14A

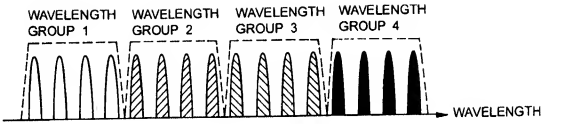


FIG. 14B

FIG. 14C

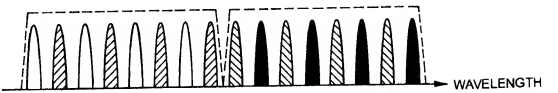


FIG. 15

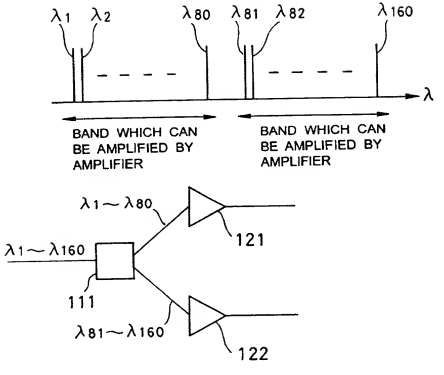

λ1
λ2
λ80
λ81
λ82
λ160
λ
BAND WHICH CAN BE AMPLIFIED BY AMPLIFIER
BAND WHICH CAN BE AMPLIFIED BY AMPLIFIER
λ1～λ80
121
λ1～λ160
111
λ81～λ160
122

FIG. 16A

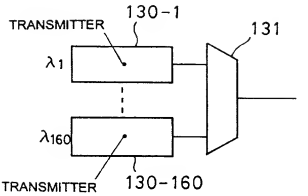


FIG. 16B

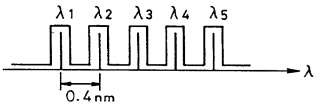
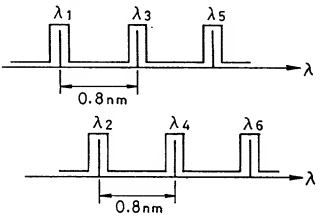
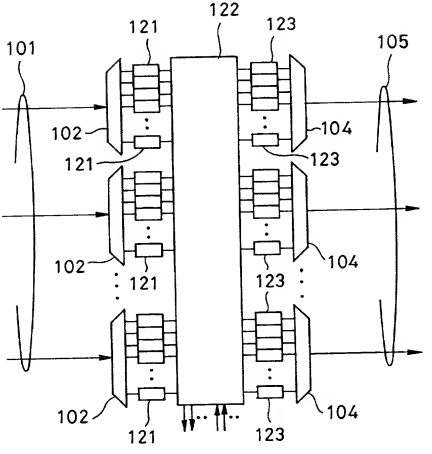


FIG. 16C



1020011259800A1

FIG. 17



1003653-110201